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ABSTRACT OF THE DISCLOSURE

A system and a method for transparent takeover (or failover) of a remote client TCP connection from a first server in a cluster of interconnected servers to a second server provides the storing of shared state information relative to the connection on each involved server and using of the shared state information to reestablish the connection on the second server. A message using a sequence number to refer to a previously transmitted data element (such as a byte) is sent by the second server and a received client acknowledgement (ACK) of that sequence number, or a higher one, is used to synchronize the server's data packet transmission sequence number with the ACK-transmitted sequence number. If synchronization is successful, then the connection is restarted on the second server from the point of termination/failure on the first server.